

HAWAII ADMINISTRATIVE RULES

TITLE 11

DEPARTMENT OF HEALTH

CHAPTER 265

HAZARDOUS WASTE MANAGEMENT

INTERIM STATUS STANDARDS FOR OWNERS AND OPERATORS OF
HAZARDOUS WASTE TREATMENT, STORAGE, AND DISPOSAL FACILITIES

Subchapter A General

- §11-265-1 Purpose, scope, and applicability.
- §11-265-2 -- 11-265-3 [Reserved]
- §11-265-4 Imminent hazard action.

Subchapter B General Facility Standards

- §11-265-10 Applicability.
- §11-265-11 Identification number.
- §11-265-12 Required notices.
- §11-265-13 General waste analysis.
- §11-265-14 Security.
- §11-265-15 General inspection requirements.
- §11-265-16 Personnel training.
- §11-265-17 General requirements for ignitable, reactive, or incompatible wastes.
- §11-265-18 Location standards.
- §11-265-19 Construction quality assurance program.

Subchapter C Preparedness and Prevention

- §11-265-30 Applicability.
- §11-265-31 Maintenance and operation of facility.
- §11-265-32 Required equipment.
- §11-265-33 Testing and maintenance of equipment.
- §11-265-34 Access to communications or alarm system.
- §11-265-35 Required aisle space.
- §11-265-36 [Reserved]
- §11-265-37 Arrangements with local authorities.

Subchapter D Contingency Plan and Emergency Procedures

§11-265-50	Applicability.
§11-265-51	Purpose and implementation of contingency plan.
§11-265-52	Content of contingency plan.
§11-265-53	Copies of contingency plan.
§11-265-54	Amendment of contingency plan.
§11-265-55	Emergency coordinator.
§11-265-56	Emergency procedures.

Subchapter E Manifest System, Recordkeeping, and Reporting

§11-265-70	Applicability.
§11-265-71	Use of manifest system.
§11-265-72	Manifest discrepancies.
§11-265-73	Operating record.
§11-265-74	Availability, retention, and disposition of records.
§11-265-75	Biennial report.
§11-265-76	Unmanifested waste report.
§11-265-77	Additional reports.

Subchapter F Ground-Water Monitoring

§11-265-90	Applicability.
§11-265-91	Ground-water monitoring system.
§11-265-92	Sampling and analysis.
§11-265-93	Preparation, evaluation, and response.
§11-265-94	Recordkeeping and reporting.

Subchapter G Closure and Post-Closure

§11-265-110	Applicability.
§11-265-111	Closure performance standard.
§11-265-112	Closure plan; amendment of plan.
§11-265-113	Closure; time allowed for closure.
§11-265-114	Disposal or decontamination of equipment, structures and soils.
§11-265-115	Certification of closure.
§11-265-116	Survey plat.
§11-265-117	Post-closure care and use of property.
§11-265-118	Post-closure plan; amendment of plan.
§11-265-119	Post-closure notices.
§11-265-120	Certification of completion of post-closure care.

Subchapter H Financial Requirements

§11-265-140	Applicability.
§11-265-141	Definitions of terms as used in this subchapter.
§11-265-142	Cost estimate for closure.
§11-265-143	Financial assurance for closure.
§11-265-144	Cost estimate for post-closure care.
§11-265-145	Financial assurance for post-closure care.
§11-265-146	Use of a mechanism for financial assurance of both closure and post-closure care.
§11-265-147	Liability requirements.
§11-265-148	Incapacity of owners or operators, guarantors, or financial institutions.
§11-265-149	[Reserved]
§11-265-150	[Reserved]

Subchapter I Use and Management of Containers

§11-265-170	Applicability.
§11-265-171	Condition of containers.
§11-265-172	Compatibility of waste with container.
§11-265-173	Management of containers.
§11-265-174	Inspections.
§11-265-175	[Reserved]
§11-265-176	Special requirements for ignitable or reactive waste.
§11-265-177	Special requirements for incompatible wastes.
§11-265-178	Air emission standards.

Subchapter J Tank Systems

§11-265-190	Applicability.
§11-265-191	Assessment of existing tank system's integrity.
§11-265-192	Design and installation of new tank systems or components.
§11-265-193	Containment and detection of releases.
§11-265-194	General operating requirements.
§11-265-195	Inspections.
§11-265-196	Response to leaks or spills and disposition of leaking or unfit-for-use tank systems.
§11-265-197	Closure and post-closure care.
§11-265-198	Special requirements for ignitable or reactive wastes.
§11-265-199	Special requirements for incompatible wastes.
§11-265-200	Waste analysis and trial tests.
§11-265-201	Special requirements for generators of between one-hundred and one-thousand kilograms per month that accumulate hazardous waste in tanks.
§11-265-202	Air emissions standards.

Subchapter K Surface Impoundments

§11-265-220	Applicability.
§11-265-202.1	Interim status surface impoundments.
§11-265-221	Design and operating requirements.
§11-265-222	Action leakage rate.
§11-265-222.1	Containment system.
§11-265-223	Response actions.
§11-265-224	[Reserved]
§11-265-225	Waste analysis and trial tests.
§11-265-226	Monitoring and inspection.
§11-265-227	[Reserved]
§11-265-228	Closure and post-closure care.
§11-265-229	Special requirements for ignitable or reactive waste.
§11-265-230	Special requirements for incompatible wastes.
§11-265-231	Air emission standards.

Subchapter L Waste Piles

§11-265-250	Applicability.
§11-265-251	Protection from wind.
§11-265-252	Waste analysis.
§11-265-253	Containment.
§11-265-254	Design requirements.
§11-265-255	Action leakage rates.
§11-265-256	Special requirements for ignitable or reactive waste.
§11-265-257	Special requirements for incompatible wastes.
§11-265-258	Closure and post-closure care.
§11-265-259	Response actions.
§11-265-260	Monitoring and inspection.

Subchapter M Land Treatment

§11-265-270	Applicability.
§11-265-271	[Reserved]
§11-265-272	General operating requirements.
§11-265-273	Waste analysis.
§11-265-274 --	§11-265-275 [Reserved]
§11-265-276	Food chain crops.
§11-265-277	[Reserved]
§11-265-278	Unsaturated zone (zone of aeration) monitoring.
§11-265-279	Recordkeeping.
§11-265-280	Closure and post-closure.
§11-265-281	Special requirements for ignitable or reactive waste.

§11-265-282 Special requirements for incompatible wastes.

Subchapter N Landfills

§11-265-300 Applicability.
§11-265-301 Design and operating requirements.
§11-265-302 Action leakage rate.
§11-265-303 Response action
§11-265-304 Monitoring and inspection.
§11-265-305 -- §11-265-308 [Reserved]
§11-265-309 Surveying and recordkeeping.
§11-265-310 Closure and post-closure care.
§11-265-311 [Reserved]
§11-265-312 Special requirements for ignitable or reactive waste.
§11-265-313 Special requirements for incompatible wastes.
§11-265-314 Special requirements for bulk and containerized liquids.
§11-265-315 Special requirements for containers.
§11-265-316 Disposal of small containers of hazardous waste in overpacked drums (lab packs).

Subchapter O Incinerators

§11-265-340 Applicability.
§11-265-341 Waste analysis.
§11-265-342 -- §11-265-344 [Reserved]
§11-265-345 General operating requirements.
§11-265-346 [Reserved]
§11-265-347 Monitoring and inspections.
§11-265-348 -- §11-265-350 [Reserved]
§11-265-351 Closure.
§11-265-352 Interim status incinerators burning particular hazardous wastes.
§11-265-353 -- §11-265-369 [Reserved]

Subchapter P Thermal Treatment

§11-265-370 Other thermal treatment.
§11-265-371 -- §11-265-372 [Reserved]
§11-265-373 General operating requirements.
§11-265-374 [Reserved]
§11-265-375 Waste analysis.
§11-265-376 [Reserved]
§11-265-377 Monitoring and inspections.
§11-265-378 -- §11-265-380 [Reserved]
§11-265-381 Closure.
§11-265-382 Open burning; waste explosives.

§11-265-383 Interim status thermal treatment devices burning particular hazardous waste.

Subchapter Q Chemical, Physical, and Biological Treatment

§11-265-400 Applicability.
§11-265-401 General operating requirements.
§11-265-402 Waste analysis and trial tests.
§11-265-403 Inspections.
§11-265-404 Closure.
§11-265-405 Special requirements for ignitable or reactive waste.
§11-265-406 Special requirements for incompatible wastes.

Subchapter R Underground Injection

§11-265-430 Applicability.

Subchapters S -- V [Reserved]

Subchapter W Drip Pads

§11-265-440 Applicability.
§11-265-441 Assessment of existing drip pad integrity.
§11-265-442 Design and installation of new drip pads.
§11-265-443 Design and operating requirements.
§11-265-444 Inspections.
§11-265-445 Closure.

Subchapters X -- Z [Reserved]

Subchapter AA Air Emission Standards for Process Vents

§11-265-1030 Applicability.
§11-265-1031 Definitions.
§11-265-1032 Standards: Process vents.
§11-265-1033 Standards: Closed-vent systems and control devices.
§11-265-1034 Test methods and procedures.
§11-265-1035 Recordkeeping requirements.
§11-265-1036 -- §11-265-1049 [Reserved]

Subchapter BB Air Emission Standards for Equipment Leaks

§11-265-1050 Applicability.

§11-265-1051 Definitions.
 §11-265-1052 Standards: Pumps in light liquid service.
 §11-265-1053 Standards: Compressors.
 §11-265-1054 Standards: Pressure relief devices in gas/vapor service.
 §11-265-1055 Standards: Sampling connection systems.
 §11-265-1056 Standards: Open-ended valves or lines.
 §11-265-1057 Standards: Valves in gas/vapor service or in light liquid service.
 §11-265-1058 Standards: Pumps and valves in heavy liquid service, pressure relief devices in light liquid or heavy liquid service, and flanges and other connectors.
 §11-265-1059 Standards: Delay of repair.
 §11-265-1060 Standards: Closed-vent systems and control devices.
 §11-265-1061 Alternative standards for valves in gas/vapor service or in light liquid service: percentage of valves allowed to leak.
 §11-265-1062 Alternative standards for valves in gas/vapor service or in light liquid service: skip period leak detection and repair.
 §11-265-1063 Test methods and procedures.
 §11-265-1064 Recordkeeping requirements.
 §11-265-1065 -- §11-265-1079 [Reserved]

Subchapter CC Air Emission Standards for Tanks, Surface Impoundments, and Containers

§11-265-1080 Applicability.
 §11-265-1081 Definitions.
 §11-265-1082 Schedule for implementation of air emission standards.
 §11-265-1083 Standards: General.
 §11-265-1084 Waste determination procedures.
 §11-265-1085 Standards: Tanks.
 §11-265-1086 Standards: Surface impoundments.
 §11-265-1087 Standards: Containers.
 §11-265-1088 Standards: Closed-vent systems and control devices.
 §11-265-1089 Inspection and monitoring requirements.
 §11-265-1090 Recordkeeping requirements.
 §11-265-1091 (Reserved)

Subchapter DD Containment Buildings

§11-265-1100 Applicability.
 §11-265-1101 Design and operating standards.
 §11-265-1102 Closure and post-closure care.
 §§11-265-1103 -- 11-265-1110 [Reserved]

§11-265-1

Subchapter EE Hazardous Waste Munitions and Explosives
Storage

- §11-265-1200 Applicability.
- §11-265-1201 Design and operating standards.
- §11-265-1202 Closure and post-closure care.

Subchapter FF Appendices

- §11-265-1300 Appendices.

SUBCHAPTER A

GENERAL

§11-265-1 Purpose, scope, and applicability. (a) The purpose of this chapter is to establish minimum State standards that are consistent with and at least as stringent as the federal standards set forth in 40 CFR Part 265 (1998). These minimum State standards define the acceptable management of hazardous waste during the period of interim status and until certification of final closure or, if the facility is subject to post-closure requirements, until post-closure responsibilities are fulfilled.

(b) Except as provided in section 11-265-1080(b), the standards of this chapter, and of sections 11-264-552 and 11-264-553, apply to:

- (1) Owners and operators of facilities that treat, store or dispose of hazardous waste who have fully complied with the requirements for interim status under section 342J-30, HRS and section 11-270-10 until either a permit is issued under section 342J-5, HRS or until applicable chapter 11-265 closure and post-closure responsibilities are fulfilled; and
- (2) Owners and operators of facilities which:
 - (A) Were in existence on November 19, 1980; or
 - (B) Were in existence on the effective date of statutory or regulatory changes under RCRA that were made prior to the effective date of the first rules adopted under chapter 342J, HRS and that rendered the facility subject to the requirement to have a RCRA permit; or
 - (C) Are in existence on the effective date of statutory or regulatory changes under chapter 342J, HRS that are made after the effective date of the first rules adopted under chapter 342J, HRS and that render the facility subject to the requirement to have a permit under section 342J-30, HRS;

and who have failed to provide timely notification as required by section 3010(a) of RCRA or section 342J-6.5, HRS and/or failed to file Part A of the permit application as required by 40 CFR 270.10 (e) and (g) (1998) or subsections 11-270-10(e) and 11-270-10(g).

These standards apply to all treatment, storage and disposal of hazardous waste at these facilities after the effective date of these regulations, except as specifically provided otherwise in this chapter or chapter 11-261.

(c) The requirements of this chapter do not apply to:

- (1) A person disposing of hazardous waste by means of ocean disposal subject to a permit issued under the Federal Marine Protection, Research, and Sanctuaries Act;
- (2) [Reserved]
- (3) The owner or operator of a POTW which treats, stores, or disposes of hazardous waste;
- (4) [Reserved]
- (5) The owner or operator of a facility permitted, licensed, or registered by the State to manage municipal or industrial solid waste, if the only hazardous waste the facility treats, stores, or disposes of is excluded from regulation under this chapter by section 11-261-5;
- (6) The owner or operator of a facility managing recyclable materials described in paragraphs 11-261-6(a)(2), 11-261-6(a)(3), and 11-261-6(a)(4) (except to the extent they are referred to in chapter 11-279 or subchapters C, F, G, or H of chapter 11-266).
- (7) A generator accumulating waste on-site in compliance with section 11-262-34, except to the extent the requirements are included in section 11-262-34;
- (8) A farmer disposing of waste pesticides from his own use in compliance with section 11-262-70; or
- (9) The owner or operator of a totally enclosed treatment facility, as defined in section 11-260-10.
- (10) The owner or operator of an elementary neutralization unit or a wastewater treatment unit as defined in section 11-260-10, provided that if the owner or operator is diluting hazardous ignitable (D001) wastes (other than the D001 High TOC Subcategory defined in section 11-268-40, Table Treatment Standards for Hazardous Wastes), or reactive (D003) waste, to remove the characteristic before land disposal, the owner/operator must comply with the requirements set out in subsection 11-265-17(b).
- (11) (i) Except as provided in subparagraph (c)(11)(ii), a person engaged in treatment or containment activities during immediate response to any of the following situations:
 - (A) A discharge of a hazardous waste;

- (B) An imminent and substantial threat of a discharge of a hazardous waste;
 - (C) A discharge of a material which, when discharged, becomes a hazardous waste;
 - (D) An immediate threat to human health, public safety, property, or the environment, from the known or suspected presence of military munitions, other explosive material, or an explosive device, as determined by an explosive or munitions emergency response specialist as defined in section 11-260-10.
- (ii) An owner or operator of a facility otherwise regulated by this chapter must comply with all applicable requirements of subchapters C and D.
 - (iii) Any person who is covered by subparagraph (c)(11)(i) and who continues or initiates hazardous waste treatment or containment activities after the immediate response is over is subject to all applicable requirements of this chapter and chapters 11-270 and 11-271 for those activities.
 - (iv) In the case of an explosives or munitions emergency response, if a federal, State, or local official acting within the scope of his or her official responsibilities, or an explosives or munitions emergency response specialist, determines that immediate removal of the material or waste is necessary to protect human health or the environment, that official or specialist may authorize the removal of the material or waste by transporters who do not have EPA identification numbers and without the preparation of a manifest. In the case of emergencies involving military munitions, the responding military emergency response specialist's organizational unit must retain records for three years identifying the dates of the response, the responsible persons responding, the type and description of material addressed, and its disposition.
- (12) A transporter storing manifested shipments of hazardous waste in containers meeting the requirements of section 11-262-30 at a transfer facility for a period of ten days or less.
 - (13) The addition of absorbent material to waste in a container (as defined in section 11-260-10) or the addition of waste to the absorbent material in a container provided that these actions occur at the time waste is first placed in the containers; and subsection 11-265-17(b), and sections 11-265-171 and 11-265-172 are complied with.

- (14) Universal waste handlers and universal waste transporters (as defined in section 11-260-10) handling the wastes listed below. These handlers are subject to regulation under chapter 11-273, when handling the below listed universal wastes.
 - (i) Batteries as described in section 11-273-2;
 - (ii) Pesticides as described in section 11-273-3; and
 - (iii) Thermostats as described in section 11-273-4.
- (d) The following hazardous wastes must not be managed at facilities subject to regulation under this chapter.
 - (1) EPA Hazardous Waste Nos. F020, F021, F022, F023, F026, or F027 unless:
 - (i) The wastewater treatment sludge is generated in a surface impoundment as part of the plant's wastewater treatment system;
 - (ii) The waste is stored in tanks or containers;
 - (iii) The waste is stored or treated in waste piles that meet the requirements of subsection 11-264-250(c) as well as all other applicable requirements of subchapter L;
 - (iv) The waste is burned in incinerators that are certified pursuant to the standards and procedures in section 11-265-352; or
 - (v) The waste is burned in facilities that thermally treat the waste in a device other than an incinerator and that are certified pursuant to the standards and procedures in section 11-265-383.
- (e) The requirements of this chapter apply to owners or operators of all facilities which treat, store or dispose of hazardous waste referred to in chapter 11-268, and the chapter 11-268 standards are considered material conditions or requirements of the chapter 11-265 interim status standards.
- (f) Section 11-266-205 identifies when the requirements of this chapter apply to the storage of military munitions classified as solid waste under section 11-266-202. The treatment and disposal of hazardous waste military munitions are subject to the applicable permitting, procedural, and technical standards in chapters 11-260 through 11-270.
- (g) All references in tables and appendices to provisions of the Code of Federal Regulations shall be construed to mean the State rule analogue of the referenced federal regulation (for example, 40 CFR 260.1 shall be construed to mean section 11-260-1 of the Hawaii Administrative Rules). [Eff 6/18/94; am 3/13/99; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.1)

§11-265-2 -- §11-265-3 [Reserved]

§11-265-4

§11-265-4 Imminent hazard action. Notwithstanding any other provisions of these rules, enforcement actions may be brought pursuant to HRS section 342J-8. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.4)

SUBCHAPTER B

GENERAL FACILITY STANDARDS

§11-265-10 Applicability. The rules in this subchapter apply to owners and operators of all hazardous waste facilities, except as section 11-265-1 provides otherwise. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.10)

§11-265-11 Identification number. Every facility owner or operator must apply to the State for an EPA identification number in accordance with the State notification procedures. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.11)

§11-265-12 Required notices.

- (a)(1) The owner or operator of a facility that has arranged to receive hazardous waste from a foreign source must notify the director and the Regional Administrator in writing at least four weeks in advance of the date the waste is expected to arrive at the facility. Notice of subsequent shipments of the same waste from the same foreign source is not required.
 - (2) The owner or operator of a recovery facility that has arranged to receive hazardous waste subject to subchapter H of chapter 11-262 must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), United States Environmental Protection Agency, 401 M St., SW., Washington, DC 20460 and to the competent authorities of all other concerned countries within three working days of receipt of the shipment. The original of the signed tracking document must be maintained at the facility for at least three years.
- (b) Before transferring ownership or operation of a facility during its operating life, or of a disposal facility during the post-closure care period, the owner or operator must notify the new owner or operator in writing of the requirements

of this chapter and chapter 11-270.

(c) Any person who imports hazardous waste into the State from any state or foreign country must, in addition to complying with the manifest requirements of chapter 11-262, submit the following information in writing to the director within thirty days after the waste has arrived in the State:

- (1) The date the waste arrived in the State; and
- (2) The disposition of the waste, i.e. storage, treatment, recycling, disposal.

(d) The requirements of subsection (c) do not apply to persons who import hazardous waste into the State from any state or foreign country if:

- (1) The waste does not stay in the State for more than ten days; and
- (2) A generator with an EPA identification number does not assume the generator status for the waste. [Eff 6/18/94; am 3/13/99; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.12)

§11-265-13 General waste analysis.

- (a)(1) Before an owner or operator treats, stores or disposes of any hazardous wastes, or non-hazardous wastes if applicable under subsection 11-265-113(d), he must obtain a detailed chemical and physical analysis of a representative sample of the wastes. At a minimum, the analysis must contain all the information which must be known to treat, store, or dispose of the waste in accordance with this chapter and chapter 11-268.
- (2) The analysis may include data developed under chapter 11-261, and existing published or documented data on the hazardous waste or on waste generated from similar processes.
- (3) The analysis must be repeated as necessary to ensure that it is accurate and up to date. At a minimum, the analysis must be repeated:
 - (i) When the owner or operator is notified, or has reason to believe, that the process or operation generating the hazardous wastes or non-hazardous wastes, if applicable, under subsection 11-265-113(d) has changed; and
 - (ii) For off-site facilities, when the results of the inspection required in paragraph (a)(4) indicate that the hazardous waste received at the facility does not match the waste designated on the accompanying manifest or shipping paper.
- (4) The owner or operator of an off-site facility must inspect and, if necessary, analyze each hazardous waste movement received at the facility to determine whether

it matches the identity of the waste specified on the accompanying manifest or shipping paper.

(b) The owner or operator must develop and follow a written waste analysis plan which describes the procedures which he or she will carry out to comply with subsection (a). He or she must keep this plan at the facility. At a minimum, the plan must specify:

- (1) The parameters for which each hazardous waste, or non-hazardous waste if applicable under subsection 11-265-113(d), will be analyzed and the rationale for the selection of these parameters (i.e., how analysis for these parameters will provide sufficient information on the waste's properties to comply with subsection (a));
- (2) The test methods which will be used to test for these parameters;
- (3) The sampling method which will be used to obtain a representative sample of the waste to be analyzed. A representative sample may be obtained using either:
 - (i) One of the sampling methods described in Appendix I of chapter 11-261; or
 - (ii) [Reserved]
- (4) The frequency with which the initial analysis of the waste will be reviewed or repeated to ensure that the analysis is accurate and up to date;
- (5) For off-site facilities, the waste analyses that hazardous waste generators have agreed to supply; and
- (6) Where applicable, the methods that will be used to meet the additional waste analysis requirements for specific waste management methods as specified in sections 11-265-200, 11-265-225, 11-265-252, 11-265-273, 11-265-314, 11-265-341, 11-265-375, 11-265-402, subsections 11-265-1034(d), and 11-265-1063(d), section 11-265-1084, and section 11-268-7.
- (7) For surface impoundments exempted from land disposal restrictions under subsection 11-268-4(a), the procedures and schedule for:
 - (i) The sampling of impoundment contents;
 - (ii) The analysis of test data; and,
 - (iii) The annual removal of residues which are listed under subchapter D of chapter 11-261 or which exhibit a characteristic of hazardous waste and either:
 - (A) Do not meet applicable treatment standards of chapter 11-268, subchapter D; or
 - (B) Where no treatment standards have been established:
 - (1) Such residues are prohibited from land disposal under section 11-268-32 or RCRA section 3004(d) (1984); or
 - (2) Such residues are prohibited from land

disposal under subsection 11-268-33(f).

- (8) For owners and operators seeking an exemption to the air emission standards of subchapter CC in accordance with section 11-265-1083--
 - (i) If direct measurement is used for the waste determination, the procedures and schedules for waste sampling and analysis, and the results of the analysis of test data to verify the exemption.
 - (ii) If knowledge of the waste is used for the waste determination, any information prepared by the facility owner or operator or by the generator of the hazardous waste, if the waste is received from off-site, that is used as the basis for knowledge of the waste.

(c) For off-site facilities, the waste analysis plan required in subsection (b) must also specify the procedures which will be used to inspect and, if necessary, analyze each movement of hazardous waste received at the facility to ensure that it matches the identity of the waste designated on the accompanying manifest or shipping paper. At a minimum, the plan must describe:

- (1) The procedures which will be used to determine the identity of each movement of waste managed at the facility; and
- (2) The sampling method which will be used to obtain a representative sample of the waste to be identified, if the identification method includes sampling.
- (3) The procedures that the owner or operator of an off-site landfill receiving containerized hazardous waste will use to determine whether a hazardous waste generator or treater has added a biodegradable sorbent to the waste in the container. [Eff 6/18/94; am 3/13/99; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.13)

§11-265-14 Security. (a) The owner or operator must prevent the unknowing entry, and minimize the possibility for the unauthorized entry, of persons or livestock onto the active portion of his facility, unless he can demonstrate to the director that:

- (1) Physical contact with the waste, structures, or equipment with the active portion of the facility will not injure unknowing or unauthorized persons or livestock which may enter the active portion of a facility, and
 - (2) Disturbance of the waste or equipment, by the unknowing or unauthorized entry of persons or livestock onto the active portion of a facility, will not cause a violation of the requirements of this chapter.
- (b) Unless exempt under paragraphs(a)(1) and (a)(2), a

facility must have:

- (1) A twenty-four hour surveillance system (e.g., television monitoring or surveillance by guards or facility personnel) which continuously monitors and controls entry onto the active portion of the facility; or
 - (2) (i) An artificial or natural barrier (e.g., a fence in good repair or a fence combined with a cliff), which completely surrounds the active portion of the facility; and
(ii) A means to control entry, at all times, through the gates or other entrances to the active portion of the facility (e.g., an attendant, television monitors, locked entrance, or controlled roadway access to the facility).
- (c) Unless exempt under paragraphs (a)(1) and (a)(2), a sign with the legend, ``Danger -- Unauthorized Personnel Keep Out,' ' must be posted at each entrance to the active portion of a facility, and at other locations, in sufficient numbers to be seen from any approach to this active portion. The legend must be written in English and must be legible from a distance of at least 25 feet. Existing signs with a legend other than ``Danger -- Unauthorized Personnel Keep Out' ' may be used if the legend on the sign indicates that only authorized personnel are allowed to enter the active portion, and that entry onto the active portion can be dangerous. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.14)

§11-265-15 General inspection requirements. (a) The owner or operator must inspect his facility for malfunctions and deterioration, operator errors, and discharges which may be causing -- or may lead to: (1) Release of hazardous waste constituents to the environment or (2) a threat to human health. The owner or operator must conduct these inspections often enough to identify problems in time to correct them before they harm human health or the environment.

- (b)(1) The owner or operator must develop and follow a written schedule for inspecting all monitoring equipment, safety and emergency equipment, security devices, and operating and structural equipment (such as dikes and sump pumps) that are important to preventing, detecting, or responding to environmental or human health hazards.
- (2) He or she must keep this schedule at the facility.
- (3) The schedule must identify the types of problems (e.g., malfunctions or deterioration) which are to be looked for during the inspection (e.g., inoperative sump pump, leaking fitting, eroding dike, etc.).
- (4) The frequency of inspection may vary for the items on

the schedule. However, the frequency should be based on the rate of deterioration of the equipment and the probability of an environmental or human health incident if the deterioration, or malfunction, or any operator error goes undetected between inspections. Areas subject to spills, such as loading and unloading areas, must be inspected daily when in use. At a minimum, the inspection schedule must include the items and frequencies called for in sections 11-265-174, 11-265-193, 11-265-195, 11-265-226, 11-265-260, 11-265-278, 11-265-304, 11-265-347, 11-265-377, 11-265-403, 11-265-1033, 11-265-1052, 11-265-1053, 11-265-1058, and 11-265-1084 through 11-265-1090, where applicable.

(c) The owner or operator must remedy any deterioration or malfunction of equipment or structures which the inspection reveals on a schedule which ensures that the problem does not lead to an environmental or human health hazard. Where a hazard is imminent or has already occurred, remedial action must be taken immediately.

(d) The owner or operator must record inspections in an inspection log or summary. He must keep these records for at least three years from the date of inspection. At a minimum, these records must include the date and time of the inspection, the name of the inspector, a notation of the observations made, and the date and nature of any repairs or other remedial actions. [Eff 6/18/94; am 3/13/99; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.15)

§11-265-16 Personnel training.

- (a)(1) Facility personnel must successfully complete a program of classroom instruction or on-the-job training that teaches them to perform their duties in a way that ensures the facility's compliance with the requirements of this chapter. The owner or operator must ensure that this program includes all the elements described in the document required under paragraph (d)(3).
- (2) This program must be directed by a person trained in hazardous waste management procedures, and must include instruction which teaches facility personnel hazardous waste management procedures (including contingency plan implementation) relevant to the positions in which they are employed.
- (3) At a minimum, the training program must be designed to ensure that facility personnel are able to respond effectively to emergencies by familiarizing them with emergency procedures, emergency equipment, and emergency systems, including where applicable:
 - (i) Procedures for using, inspecting, repairing, and

replacing facility emergency and monitoring equipment;

- (ii) Key parameters for automatic waste feed cut-off systems;
- (iii) Communications or alarm systems;
- (iv) Response to fires or explosions;
- (v) Response to ground-water contamination incidents; and
- (vi) Shutdown of operations.

(b) Facility personnel must successfully complete the program required in subsection (a) within six months after the date of their employment or assignment to a facility, or to a new position at a facility. Employees hired prior to and after the effective date of these regulations must not work in unsupervised positions until they have completed the training requirements of subsection (a).

(c) Facility personnel must take part in an annual review of the initial training required in subsection (a).

(d) The owner or operator must maintain the following documents and records at the facility:

- (1) The job title for each position at the facility related to hazardous waste management, and the name of the employee filling each job;
- (2) A written job description for each position listed under paragraph (d)(1). This description may be consistent in its degree of specificity with descriptions for other similar positions in the same company location or bargaining unit, but must include the requisite skill, education, or other qualifications, and duties of facility personnel assigned to each position;
- (3) A written description of the type and amount of both introductory and continuing training that will be given to each person filling a position listed under paragraph (d)(1);
- (4) Records that document that the training or job experience required under subsections (a), (b), and (c) has been given to, and completed by, facility personnel.

(e) Training records on current personnel must be kept until closure of the facility. Training records on former employees must be kept for at least three years from the date the employee last worked at the facility. Personnel training records may accompany personnel transferred within the same company. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.16)

§11-265-17 General requirements for ignitable, reactive, or incompatible wastes. (a) The owner or operator must take

precautions to prevent accidental ignition or reaction of ignitable or reactive waste. This waste must be separated and protected from sources of ignition or reaction including but not limited to: Open flames, smoking, cutting and welding, hot surfaces, frictional heat, sparks (static, electrical, or mechanical), spontaneous ignition (e.g., from heat-producing chemical reactions), and radiant heat. While ignitable or reactive waste is being handled, the owner or operator must confine smoking and open flame to specially designated locations. ``No Smoking'' signs must be conspicuously placed wherever there is a hazard from ignitable or reactive waste.

(b) Where specifically required by other sections of this chapter, the treatment, storage, or disposal of ignitable or reactive waste, and the mixture or commingling of incompatible wastes, or incompatible wastes and materials, must be conducted so that it does not:

- (1) Generate extreme heat or pressure, fire or explosion, or violent reaction;
- (2) Produce uncontrolled toxic mists, fumes, dusts, or gases in sufficient quantities to threaten human health;
- (3) Produce uncontrolled flammable fumes or gases in sufficient quantities to pose a risk of fire or explosions;
- (4) Damage the structural integrity of the device or facility containing the waste; or
- (5) Through other like means threaten human health or the environment. [Eff 6/18/94; comp]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.17)

§11-265-18 Location standards. The placement of any hazardous waste in a salt dome, salt bed formation, underground mine or cave is prohibited. [Eff 6/18/94; comp]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.18)

§11-265-19 Construction quality assurance program. (a) CQA program.

- (1) A construction quality assurance (CQA) program is required for all surface impoundment, waste pile, and landfill units that are required to comply with subsection 11-265-221(a), section 11-265-254, and subsection 11-265-301(a). The program must ensure that the constructed unit meets or exceeds all design criteria and specifications in the permit. The program must be developed and implemented under the direction of a CQA officer who is a registered professional

engineer.

- (2) The CQA program must address the following physical components, where applicable:
 - (i) Foundations;
 - (ii) Dikes;
 - (iii) Low-permeability soil liners;
 - (iv) Geomembranes (flexible membrane liners);
 - (v) Leachate collection and removal systems and leak detection systems; and
 - (vi) Final cover systems.

(b) Written CQA plan. Before construction begins on a unit subject to the CQA program under subsection (a), the owner or operator must develop a written CQA plan. The plan must identify steps that will be used to monitor and document the quality of materials and the condition and manner of their installation.

The CQA plan must include:

- (1) Identification of applicable units, and a description of how they will be constructed.
- (2) Identification of key personnel in the development and implementation of the CQA plan, and CQA officer qualifications.
- (3) A description of inspection and sampling activities for all unit components identified in paragraph (a)(2), including observations and tests that will be used before, during, and after construction to ensure that the construction materials and the installed unit components meet the design specifications. The description must cover: Sampling size and locations; frequency of testing; data evaluation procedures; acceptance and rejection criteria for construction materials; plans for implementing corrective measures; and data or other information to be recorded and retained in the operating record under section 11-265-73.

(c) Contents of program.

- (1) The CQA program must include observations, inspections, tests, and measurements sufficient to ensure:
 - (i) Structural stability and integrity of all components of the unit identified in paragraph (a)(2);
 - (ii) Proper construction of all components of the liners, leachate collection and removal system, leak detection system, and final cover system, according to permit specifications and good engineering practices, and proper installation of all components (e.g., pipes) according to design specifications;
 - (iii) Conformity of all materials used with design and other material specifications under sections 11-264-221, 11-264-251, and 11-264-301.

- (2) The CQA program shall include test fills for compacted soil liners, using the same compaction methods as in the full-scale unit, to ensure that the liners are constructed to meet the hydraulic conductivity requirements of paragraphs 11-264-221(c)(1), 11-264-251(c)(1), and 11-264-301(c)(1) in the field. Compliance with the hydraulic conductivity requirements must be verified by using in-situ testing on the constructed test fill. The test fill requirement is waived where data are sufficient to show that a constructed soil liner meets the hydraulic conductivity requirements of paragraphs 11-264-221(c)(1), 11-264-254(c)(1), and 11-264-301(c)(1) in the field.

(d) Certification. The owner or operator of units subject to section 11-265-19 must submit to the director by certified mail or hand delivery, at least thirty days prior to receiving waste, a certification signed by the CQA officer that the CQA plan has been successfully carried out and that the unit meets the requirements of subsection 11-265-221(a), section 11-265-254, or subsection 11-265-301(a). The owner or operator may receive waste in the unit after thirty days from the director's receipt of the CQA certification unless the director determines in writing that the construction is not acceptable, or extends the review period for a maximum of thirty more days, or seeks additional information from the owner or operator during this period. Documentation supporting the CQA officer's certification must be furnished to the director upon request. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.19)

SUBCHAPTER C

PREPAREDNESS AND PREVENTION

§11-265-30 Applicability. The rules in this subchapter apply to owners and operators of all hazardous waste facilities, except as section 11-265-1 provides otherwise. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.30)

§11-265-31 Maintenance and operation of facility. Facilities must be maintained and operated to minimize the possibility of a fire, explosion, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water which could threaten human health or the environment. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.31)

§11-265-32

§11-265-32 Required equipment. All facilities must be equipped with the following, unless none of the hazards posed by waste handled at the facility could require a particular kind of equipment specified below:

- (a) An internal communications or alarm system capable of providing immediate emergency instruction (voice or signal) to facility personnel;
- (b) A device, such as a telephone (immediately available at the scene of operations) or a hand-held two-way radio, capable of summoning emergency assistance from local police departments, fire departments, or State or county emergency response teams;
- (c) Portable fire extinguishers, fire control equipment (including special extinguishing equipment, such as that using foam, inert gas, or dry chemicals), spill control equipment, and decontamination equipment; and
- (d) Water at adequate volume and pressure to supply water hose streams, or foam producing equipment, or automatic sprinklers, or water spray systems. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.32)

§11-265-33 Testing and maintenance of equipment. All facility communications or alarm systems, fire protection equipment, spill control equipment, and decontamination equipment, where required, must be tested and maintained as necessary to assure its proper operation in time of emergency. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.33)

§11-265-34 Access to communications or alarm system. (a) Whenever hazardous waste is being poured, mixed, spread, or otherwise handled, all personnel involved in the operation must have immediate access to an internal alarm or emergency communication device, either directly or through visual or voice contact with another employee, unless such a device is not required under section 11-265-32.

(b) If there is ever just one employee on the premises while the facility is operating, he must have immediate access to a device, such as a telephone (immediately available at the scene of operation) or a hand-held two-way radio, capable of summoning external emergency assistance, unless such a device is not required under section 11-265-32. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.34)

§11-265-35 Required aisle space. The owner or operator must maintain aisle space to allow the unobstructed movement of

personnel, fire protection equipment, spill control equipment, and decontamination equipment to any area of facility operation in an emergency, unless aisle space is not needed for any of these purposes. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.35)

§11-265-36 [Reserved]

§11-265-37 Arrangements with local authorities. (a) The owner or operator must attempt to make the following arrangements, as appropriate for the type of waste handled at his facility and the potential need for the services of these organizations:

- (1) Arrangements to familiarize police, fire departments, and emergency response teams with the layout of the facility, properties of hazardous waste handled at the facility and associated hazards, places where facility personnel would normally be working, entrances to roads inside the facility, and possible evacuation routes;
- (2) Where more than one police and fire department might respond to an emergency, agreements designating primary emergency authority to a specific police and a specific fire department, and agreements with any others to provide support to the primary emergency authority;
- (3) Agreements with State emergency response teams, emergency response contractors, and equipment suppliers; and
- (4) Arrangements to familiarize local hospitals with the properties of hazardous waste handled at the facility and the types of injuries or illnesses which could result from fires, explosions, or releases at the facility.

(b) Where State, county or local authorities decline to enter into such arrangements, the owner or operator must document the refusal in the operating record. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.37)

SUBCHAPTER D

CONTINGENCY PLAN AND EMERGENCY PROCEDURES

§11-265-50 Applicability. The rules in this subchapter apply to owners and operators of all hazardous waste facilities, except as section 11-265-1 provides otherwise. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.50)

§11-265-51 Purpose and implementation of contingency plan.

(a) Each owner or operator must have a contingency plan for his facility. The contingency plan must be designed to minimize hazards to human health or the environment from fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water.

(b) The provisions of the plan must be carried out immediately whenever there is a fire, explosion, or release of hazardous waste or hazardous waste constituents which could threaten human health or the environment. [Eff 6/18/94; comp
] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35)
(Imp: 40 C.F.R. §265.51)

§11-265-52 Content of contingency plan. (a) The contingency plan must describe the actions facility personnel must take to comply with sections 11-265-51 and 11-265-56 in response to fires, explosions, or any unplanned sudden or non-sudden release of hazardous waste or hazardous waste constituents to air, soil, or surface water at the facility.

(b) If the owner or operator has already prepared a Spill Prevention, Control, and Countermeasures (SPCC) Plan in accordance with 40 CFR Part 112, or some other emergency or contingency plan, he need only amend that plan to incorporate hazardous waste management provisions that are sufficient to comply with the requirements of this chapter.

(c) The plan must describe arrangements agreed to by county police departments, fire departments, hospitals, contractors, and State and county emergency response teams to coordinate emergency services, pursuant to section 11-265-37.

(d) The plan must list names, addresses, and phone numbers (office and home) of all persons qualified to act as emergency coordinator (see section 11-265-55), and this list must be kept up to date. Where more than one person is listed, one must be named as primary emergency coordinator and others must be listed in the order in which they will assume responsibility as alternates.

(e) The plan must include a list of all emergency equipment at the facility (such as fire extinguishing systems, spill control equipment, communications and alarm systems (internal and external), and decontamination equipment), where this equipment is required. This list must be kept up to date. In addition, the plan must include the location and a physical description of each item on the list, and a brief outline of its capabilities.

(f) The plan must include an evacuation plan for facility personnel where there is a possibility that evacuation could be necessary. This plan must describe signal(s) to be used to begin evacuation, evacuation routes, and alternate evacuation routes (in cases where the primary routes could be blocked by releases

of hazardous waste or fires). [Eff 6/18/94; comp]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.52)

§11-265-53 Copies of contingency plan. A copy of the contingency plan and all revisions to the plan must be:

- (a) Maintained at the facility; and
- (b) Submitted to all county police departments, fire departments, hospitals, and State and county emergency response teams that may be called upon to provide emergency services. [Eff 6/18/94; comp]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.53)

§11-265-54 Amendment of contingency plan. The contingency plan must be reviewed, and immediately amended, if necessary, whenever:

- (a) Applicable regulations are revised;
- (b) The plan fails in an emergency;
- (c) The facility changes -- in its design, construction, operation, maintenance, or other circumstances -- in a way that materially increases the potential for fires, explosions, or releases of hazardous waste or hazardous waste constituents, or changes the response necessary in an emergency;
- (d) The list of emergency coordinators changes; or
- (e) The list of emergency equipment changes. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.54)

§11-265-55 Emergency coordinator. At all times, there must be at least one employee either on the facility premises or on call (i.e., available to respond to an emergency by reaching the facility within a short period of time) with the responsibility for coordinating all emergency response measures. This emergency coordinator must be thoroughly familiar with all aspects of the facility's contingency plan, all operations and activities at the facility, the location and characteristics of waste handled, the location of all records within the facility, and the facility layout. In addition, this person must have the authority to commit the resources needed to carry out the contingency plan. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.55)

§11-265-56 Emergency procedures. (a) Whenever there is an imminent or actual emergency situation, the emergency coordinator

(or his designee when the emergency coordinator is on call) must immediately:

- (1) Activate internal facility alarms or communication systems, where applicable, to notify all facility personnel; and
 - (2) Notify appropriate State or county agencies with designated response roles if their help is needed.
- (b) Whenever there is a release, fire, or explosion, the emergency coordinator must immediately identify the character, exact source, amount, and areal extent of any released materials. He may do this by observation or review of facility records or manifests and, if necessary, by chemical analysis.
- (c) Concurrently, the emergency coordinator must assess possible hazards to human health or the environment that may result from the release, fire, or explosion. This assessment must consider both direct and indirect effects of the release, fire, or explosion (e.g., the effects of any toxic, irritating, or asphyxiating gases that are generated, or the effects of any hazardous surface water run-offs from water or chemical agents used to control fire and heat-induced explosions).
- (d) If the emergency coordinator determines that the facility has had a release, fire, or explosion which could threaten human health, or the environment, outside the facility, he or she must report his findings as follows:
- (1) If his assessment indicates that evacuation of local areas may be advisable, he or she must immediately notify appropriate State and county authorities. He or she must be available to help appropriate officials decide whether local areas should be evacuated; and
 - (2) He or she must immediately notify either the government official designated as the on-scene coordinator from the Hawaii Department of Health's Hazard Evaluation and Emergency Response Office via the State Hospital at (808) 247-2191 after business hours or directly at (808) 586-4249 during business hours or the federal National Response Center (using their 24-hour toll free number (808) 424-8802). The report must include:
 - (i) Name and telephone number of reporter;
 - (ii) Name and address of facility;
 - (iii) Time and type of incident (e.g., release, fire);
 - (iv) Name and quantity of material(s) involved, to the extent known;
 - (v) The extent of injuries, if any; and
 - (vi) The possible hazards to human health, or the environment, outside the facility.
- (e) During an emergency, the emergency coordinator must take all reasonable measures necessary to ensure that fires, explosions, and releases do not occur, recur, or spread to other hazardous waste at the facility. These measures must include, where applicable, stopping processes and operations, collecting

and containing released waste, and removing or isolating containers.

(f) If the facility stops operations in response to a fire, explosion or release, the emergency coordinator must monitor for leaks, pressure buildup, gas generation, or ruptures in valves, pipes, or other equipment, wherever this is appropriate.

(g) Immediately after an emergency, the emergency coordinator must provide for treating, storing, or disposing of recovered waste, contaminated soil or surface water, or any other material that results from a release, fire, or explosion at the facility.

(h) The emergency coordinator must ensure that, in the affected area(s) of the facility:

- (1) No waste that may be incompatible with the released material is treated, stored, or disposed of until cleanup procedures are completed; and
- (2) All emergency equipment listed in the contingency plan is cleaned and fit for its intended use before operations are resumed.

(i) The owner or operator must notify the director, and appropriate State and county authorities, that the facility is in compliance with subsection (h) before operations are resumed in the affected area(s) of the facility.

(j) The owner or operator must note in the operating record the time, date, and details of any incident that requires implementing the contingency plan. Within fifteen days after the incident, he must submit a written report on the incident to the director. The report must include:

- (1) Name, address, and telephone number of the owner or operator;
- (2) Name, address, and telephone number of the facility;
- (3) Date, time, and type of incident (e.g., fire, explosion);
- (4) Name and quantity of material(s) involved;
- (5) The extent of injuries, if any;
- (6) An assessment of actual or potential hazards to human health or the environment, where this is applicable; and
- (7) Estimated quantity and disposition of recovered material that resulted from the incident. [Eff 6/18/94; am 3/13/99; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.56)

SUBCHAPTER E

MANIFEST SYSTEM, RECORDKEEPING, AND REPORTING

§11-265-70 Applicability. The rules in this subchapter

apply to owners and operators of both on-site and off-site facilities, except as section 11-265-1 provides otherwise. Sections 11-265-71, 11-265-72, and 11-265-76 do not apply to owners and operators of on-site facilities that do not receive any hazardous waste from off-site sources, and to owners and operators of off-site facilities with respect to waste military munitions exempted from manifest requirements under section 11-266-203(a). [Eff 6/18/94; am 3/13/99; comp]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.70)

§11-265-71 Use of manifest system. (a) If a facility receives hazardous waste accompanied by a manifest, the owner or operator, or his agent, must:

- (1) Sign and date each copy of the manifest to certify that the hazardous waste covered by the manifest was received;
- (2) Note any significant discrepancies in the manifest (as defined in subsection 11-265-72(a)) on each copy of the manifest;
(Comment: The department does not intend that the owner or operator of a facility whose procedures under section 11-265-13(c) include waste analysis must perform that analysis before signing the manifest and giving it to the transporter. Subsection 11-265-72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.)
- (3) Immediately give the transporter at least one copy of the signed manifest;
- (4) Within thirty days after the delivery, send a copy of the manifest to the generator; and
- (5) Retain at the facility a copy of each manifest for at least three years from the date of delivery.

(b) If a facility receives, from a rail or water (bulk shipment) transporter, hazardous waste which is accompanied by a shipping paper containing all the information required on the manifest (excluding the EPA identification numbers, generator's certification, and signatures), the owner or operator, or his agent, must:

- (1) Sign and date each copy of the manifest or shipping paper (if the manifest has not been received) to certify that the hazardous waste covered by the manifest or shipping paper was received;
- (2) Note any significant discrepancies (as defined in subsection 11-265-72(a)) in the manifest or shipping paper (if the manifest has not been received) on each copy of the manifest or shipping paper;
(Comment: The department does not intend that the owner or operator of a facility whose procedures under

section 11-265-13(c) include waste analysis must perform that analysis before signing the shipping paper and giving it to the transporter. Subsection 11-265-72(b), however, requires reporting an unreconciled discrepancy discovered during later analysis.)

- (3) Immediately give the rail or water (bulk shipment) transporter at least one copy of the manifest or shipping paper (if the manifest has not been received);
- (4) Within thirty days after the delivery, send a copy of the signed and dated manifest to the generator; however, if the manifest has not been received within thirty days after delivery, the owner or operator, or his agent, must send a copy of the shipping paper signed and dated to the generator; and
(Comment: Subsection 11-262-23(c) requires the generator to send three copies of the manifest to the facility when hazardous waste is sent by rail or water (bulk shipment).)
- (5) Retain at the facility a copy of the manifest and shipping paper (if signed in lieu of the manifest at the time of delivery) for at least three years from the date of delivery.

(c) Whenever a shipment of hazardous waste is initiated from a facility, the owner or operator of that facility must comply with the requirements of chapter 11-262.

(Comment: The provisions of section 11-262-34 are applicable to the on-site accumulation of hazardous wastes by generators. Therefore, the provisions of section 11-262-34 only apply to owners or operators who are shipping hazardous waste which they generated at that facility.)

(d) Within three working days of the receipt of a shipment subject to subchapter H of chapter 11-262, the owner or operator of the facility must provide a copy of the tracking document bearing all required signatures to the notifier, to the Office of Enforcement and Compliance Assurance, Office of Compliance, Enforcement Planning, Targeting and Data Division (2222A), United States Environmental Protection Agency, 401 M St., SW., Washington, DC 20460, and to competent authorities of all other concerned countries. The original copy of the tracking document must be maintained at the facility for at least three years from the date of signature. [Eff 6/18/94; am 3/13/99; comp

] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35)
(Imp: 40 C.F.R. §265.71)

§11-265-72 Manifest discrepancies. (a) Manifest discrepancies are differences between the quantity or type of hazardous waste designated on the manifest or shipping paper, and the quantity or type of hazardous waste a facility actually receives. Significant discrepancies in quantity are:

§11-265-72

- (1) For bulk waste, variations greater than ten percent in weight; and
- (2) For batch waste, any variation in piece count, such as a discrepancy of one drum in a truckload.

Significant discrepancies in type are obvious differences which can be discovered by inspection or waste analysis, such as waste solvent substituted for waste acid, or toxic constituents not reported on the manifest or shipping paper.

(b) Upon discovering a significant discrepancy, the owner or operator must attempt to reconcile the discrepancy with the waste generator or transporter (e.g., with telephone conversations). If the discrepancy is not resolved within fifteen days after receiving the waste, the owner or operator must immediately submit to the director a letter describing the discrepancy and attempts to reconcile it, and a copy of the manifest or shipping paper at issue. [Eff 6/18/94; comp

] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35)
(Imp: 40 C.F.R. §265.72)

§11-265-73 Operating record. (a) The owner or operator must keep a written operating record at his facility.

(b) The following information must be recorded, as it becomes available, and maintained in the operating record until closure of the facility:

- (1) A description and the quantity of each hazardous waste received, and the method(s) and date(s) of its treatment, storage, or disposal at the facility as required by Appendix I;
- (2) The location of each hazardous waste within the facility and the quantity at each location. For disposal facilities, the location and quantity of each hazardous waste must be recorded on a map or diagram of each cell or disposal area. For all facilities, this information must include cross-references to specific manifest document numbers, if the waste was accompanied by a manifest;
- (3) Records and results of waste analyses, waste determinations, and trial tests performed as specified in sections 11-265-13, 11-265-200, 11-265-225, 11-265-252, 11-265-273, 11-265-314, 11-265-341, 11-265-375, 11-265-402, 11-265-1034, 11-265-1063, 11-265-1084, subsection 11-268-4(a), and section 11-268-7.
- (4) Summary reports and details of all incidents that require implementing the contingency plan as specified in subsection 11-265-56(j);
- (5) Records and results of inspections as required by subsection 11-265-15(d) (except these data need be kept only three years);
- (6) Monitoring, testing or analytical data, and corrective

action where required by subchapter F and by sections 11-265-19, 11-265-90, 11-265-94, 11-265-191, 11-265-193, 11-265-195, 11-265-222, 11-265-223, 11-265-226, 11-265-255, 11-265-259, 11-265-260, 11-265-276, 11-265-278, paragraph 11-265-280(d)(1), sections 11-265-302 through 11-265-304, 11-265-347, 11-265-377, subsections 11-265-1034(c) through 11-265-1034(f), section 11-265-1035, subsections 11-265-1063(d) through 11-265-1063(i), sections 11-265-1064, and 11-265-1083 through 11-265-1090.

- (7) All closure cost estimates under section 11-265-142 and, for disposal facilities, all post-closure cost estimates under section 11-265-144.
- (8) Records of the quantities (and date of placement) for each shipment of hazardous waste placed in land disposal units under an extension to the effective date of any land disposal restriction granted pursuant to 40 CFR 268.5, or monitoring data required pursuant to a petition under 40 CFR 268.6, and the applicable notice required by a generator under subsection 11-268-7(a).

(Note: Federal approvals granted pursuant to 40 CFR 268.5 or 40 CFR 268.6 do not constitute approvals by the State unless the department adopts the approval by rules. See section 11-268-51.)

- (9) For an off-site treatment facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under section 11-268-7 or 40 CFR 268.8;
- (10) For an on-site treatment facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator under section 11-268-7 or 40 CFR 268.8;
- (11) For an off-site land disposal facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under section 11-268-7 or 40 CFR 268.8;
- (12) For an on-site land disposal facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under section 11-268-7 or 40 CFR 268.8;
- (13) For an off-site storage facility, a copy of the notice, and the certification and demonstration if applicable, required by the generator or the owner or operator under section 11-268-7 or 40 CFR 268.8; and

§11-265-73

- (14) For an on-site storage facility, the information contained in the notice (except the manifest number), and the certification and demonstration if applicable, required by the generator or the owner or operator of a treatment facility under section 11-268-7 or 40 CFR 268.8. [Eff 6/18/94; am 3/13/99; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.73)

§11-265-74 Availability, retention, and disposition of records. (a) All records, including plans, required under this chapter must be furnished upon request, and made available at all reasonable times for inspection, by any officer, employee, or representative of the department who is duly designated by the director.

(b) The retention period for all records required under this chapter is extended automatically during the course of any unresolved enforcement action regarding the facility or as requested by the director.

(c) A copy of records of waste disposal locations and quantities under paragraph 11-265-73(b)(2) must be submitted to the director and county land authority upon closure of the facility (see section 11-265-119). [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.74)

§11-265-75 Biennial report. The owner or operator must prepare and submit a single copy of a biennial report to the director by March 1 of each even numbered year. The biennial report must be submitted on EPA Form 8700-13B (see Appendix VI). The report must cover facility activities during the previous calendar year and must include the following information:

- (a) The EPA identification number, name, and address of the facility;
- (b) The calendar year covered by the report;
- (c) For off-site facilities, the EPA identification number of each hazardous waste generator from which the facility received a hazardous waste during the year; for imported shipments, the report must give the name and address of the foreign generator;
- (d) A description and the quantity of each hazardous waste the facility received during the year. For off-site facilities, this information must be listed by EPA identification number of each generator;
- (e) The method of treatment, storage, or disposal for each hazardous waste;
- (f) Monitoring data under subparagraphs 11-265-94(a)(2)(ii) and (iii), and paragraph 11-265-94(b)(2), where

- required;
- (g) The most recent closure cost estimate under section 11-265-142, and, for disposal facilities, the most recent post-closure cost estimate under section 11-265-144; and
- (h) For generators who treat, store, or dispose of hazardous waste on-site, a description of the efforts undertaken during the year to reduce the volume and toxicity of waste generated.
- (i) For generators who treat, store, or dispose of hazardous waste on-site, a description of the changes in volume and toxicity of waste actually achieved during the year in comparison to previous years to the extent such information is available for the years prior to 1984.
- (j) The certification signed by the owner or operator of the facility or his authorized representative. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.75)

§11-265-76 Unmanifested waste report. If a facility accepts for treatment, storage, or disposal any hazardous waste from an off-site source without an accompanying manifest, or without an accompanying shipping paper as described in paragraph 11-263-20(e)(2), and if the waste is not excluded from the manifest requirement by section 11-261-5, then the owner or operator must prepare and submit a single copy of a report to the director within fifteen days after receiving the waste. The unmanifested waste report must be submitted on EPA form 8700-13B. Such report must be designated 'Unmanifested Waste Report' and include the following information:

- (a) The EPA identification number, name, and address of the facility;
- (b) The date the facility received the waste;
- (c) The EPA identification number, name, and address of the generator and the transporter, if available;
- (d) A description and the quantity of each unmanifested hazardous waste the facility received;
- (e) The method of treatment, storage, or disposal for each hazardous waste;
- (f) The certification signed by the owner or operator of the facility or his authorized representative; and
- (g) A brief explanation of why the waste was unmanifested, if known.

[Comment: Small quantities of hazardous waste are excluded from regulation under this chapter and do not require a manifest. Where a facility receives unmanifested hazardous wastes, the department suggests that the owner or operator obtain from each generator a certification that the waste qualifies for exclusion.]

§11-265-76

Otherwise, the department suggests that the owner or operator file an unmanifested waste report for the hazardous waste movement.] [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.76)

§11-265-77 Additional reports. In addition to submitting the biennial report and unmanifested waste reports described in sections 11-265-75 and 11-265-76, the owner or operator must also report to the director:

- (a) Releases, fires, and explosions as specified in subsection 11-265-56(j);
- (b) Ground-water contamination and monitoring data as specified in sections 11-265-93 and 11-265-94; and
- (c) Facility closure as specified in section 11-265-115.
- (d) As otherwise required by subchapters AA, BB, and CC. [Eff 6/18/94; am 3/13/99; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.77)

SUBCHAPTER F

GROUND-WATER MONITORING

§11-265-90 Applicability. (a) The owner or operator of a surface impoundment, landfill, or land treatment facility which is used to manage hazardous waste must implement a ground-water monitoring program capable of determining the facility's impact on the quality of ground water in the uppermost aquifer underlying the facility, except as section 11-265-1 and subsection (c) of this section provide otherwise.

(b) Except as subsections (c) and (d) provide otherwise, the owner or operator must install, operate, and maintain a ground-water monitoring system which meets the requirements of section 11-265-91, and must comply with sections 11-265-92 through 11-265-94. This ground-water monitoring program must be carried out during the active life of the facility, and for disposal facilities, during the post-closure care period as well.

(c) All or part of the ground-water monitoring requirements of this subchapter may be waived if the owner or operator can demonstrate that there is a low potential for migration of hazardous waste or hazardous waste constituents from the facility via the uppermost aquifer to water supply wells (domestic, industrial, or agricultural) or to surface water. This demonstration must be in writing, and must be kept at the facility. This demonstration must be certified by a qualified geologist or geotechnical engineer and must establish the following:

- (1) The potential for migration of hazardous waste or

hazardous waste constituents from the facility to the uppermost aquifer, by an evaluation of:

- (i) A water balance of precipitation, evapotranspiration, runoff, and infiltration; and
 - (ii) Unsaturated zone characteristics (i.e., geologic materials, physical properties, and depth to ground water); and
- (2) The potential for hazardous waste or hazardous waste constituents which enter the uppermost aquifer to migrate to a water supply well or surface water, by an evaluation of:
- (i) Saturated zone characteristics (i.e., geologic materials, physical properties, and rate of ground-water flow); and
 - (ii) The proximity of the facility to water supply wells or surface water.

(d) If an owner or operator assumes (or knows) that ground-water monitoring of indicator parameters in accordance with sections 11-265-91 and 11-265-92 would show statistically significant increases (or decreases in the case of pH) when evaluated under subsection 11-265-93(b), he may, install, operate, and maintain an alternate ground-water monitoring system (other than the one described in sections 11-265-91 and 11-265-92). If the owner or operator decides to use an alternate ground-water monitoring system he must:

- (1) Submit to the director a specific plan, certified by a qualified geologist or geotechnical engineer, which satisfies the requirements of paragraph 11-265-93(d)(3), for an alternate ground-water monitoring system;
- (2) Initiate the determinations specified in paragraph 11-265-93(d)(4);
- (3) Prepare and submit a written report in accordance with paragraph 11-265-93(d)(5);
- (4) Continue to make the determinations specified in paragraph 11-265-93(d)(4) on a quarterly basis until final closure of the facility; and
- (5) Comply with the recordkeeping and reporting requirements in subsection 11-265-94(b).

(e) The ground-water monitoring requirements of this subchapter may be waived with respect to any surface impoundment that:

- (1) Is used to neutralize wastes which are hazardous solely because they exhibit the corrosivity characteristic under section 11-261-22 or are listed as hazardous wastes in subchapter D of chapter 11-261 only for this reason; and
- (2) Contains no other hazardous wastes, if the owner or operator can demonstrate that there is no potential for migration of hazardous wastes from the impoundment.

The demonstration must establish, based upon consideration of the characteristics of the wastes and the impoundment, that the corrosive wastes will be neutralized to the extent that they no longer meet the corrosivity characteristic before they can migrate out of the impoundment. The demonstration must be in writing and must be certified by a qualified professional. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.90)

§11-265-91 Ground-water monitoring system. (a) A ground-water monitoring system must be capable of yielding ground-water samples for analysis and must consist of:

- (1) Monitoring wells (at least one) installed hydraulically upgradient (i.e., in the direction of increasing static head) from the limit of the waste management area. Their number, locations, and depths must be sufficient to yield ground-water samples that are:
 - (i) Representative of background ground-water quality in the uppermost aquifer near the facility; and
 - (ii) Not affected by the facility; and
- (2) Monitoring wells (at least three) installed hydraulically downgradient (i.e., in the direction of decreasing static head) at the limit of the waste management area. Their number, locations, and depths must ensure that they immediately detect any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.
- (3) The facility owner or operator may demonstrate that an alternate hydraulically downgradient monitoring well location will meet the criteria outlined below. The demonstration must be in writing and kept at the facility. The demonstration must be certified by a qualified ground-water scientist and establish that:
 - (i) An existing physical obstacle prevents monitoring well installation at the hydraulically downgradient limit of the waste management area; and
 - (ii) The selected alternate downgradient location is as close to the limit of the waste management area as practical; and
 - (iii) The location ensures detection that, given the alternate location, is as early as possible of any statistically significant amounts of hazardous waste or hazardous waste constituents that migrate from the waste management area to the uppermost aquifer.
 - (iv) Lateral expansion, new, or replacement units are not eligible for an alternate downgradient

location under this subsection.

(b) Separate monitoring systems for each waste management component of a facility are not required provided that provisions for sampling upgradient and downgradient water quality will detect any discharge from the waste management area.

(1) In the case of a facility consisting of only one surface impoundment, landfill, or land treatment area, the waste management area is described by the waste boundary (perimeter).

(2) In the case of a facility consisting of more than one surface impoundment, landfill, or land treatment area, the waste management area is described by an imaginary boundary line which circumscribes the several waste management components.

(c) All monitoring wells must be cased in a manner that maintains the integrity of the monitoring well bore hole. This casing must be screened or perforated, and packed with gravel or sand where necessary, to enable sample collection at depths where appropriate aquifer flow zones exist. The annular space (i.e., the space between the bore hole and well casing) above the sampling depth must be sealed with a suitable material (e.g., cement grout or bentonite slurry) to prevent contamination of samples and the ground water. [Eff 6/18/94; comp]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.91)

§11-265-92 Sampling and analysis. (a) The owner or operator must obtain and analyze samples from the installed ground-water monitoring system. The owner or operator must develop and follow a ground-water sampling and analysis plan. He must keep this plan at the facility. The plan must include procedures and techniques for:

- (1) Sample collection;
- (2) Sample preservation and shipment;
- (3) Analytical procedures; and
- (4) Chain of custody control.

See "Procedures Manual For Ground-water Monitoring at Solid Waste Disposal Facilities," EPA-530/SW-611, August 1977 and "Methods for Chemical Analysis of Water and Wastes," EPA-600/4-79-020, March 1979 for discussions of sampling and analysis procedures.

(b) The owner or operator must determine the concentration or value of the following parameters in ground-water samples in accordance with subsections (c) and (d):

- (1) Parameters characterizing the suitability of the ground water as a drinking water supply, as specified in Appendix III.
- (2) Parameters establishing ground-water quality:
 - (i) Chloride
 - (ii) Iron

§11-265-92

- (iii) Manganese
- (iv) Phenols
- (v) Sodium
- (vi) Sulfate
- (3) Parameters used as indicators of ground-water contamination:
 - (i) pH
 - (ii) Specific Conductance
 - (iii) Total Organic Carbon
 - (iv) Total Organic Halogen
- (c)(1) For all monitoring wells, the owner or operator must establish initial background concentrations or values of all parameters specified in subsection (b). He must do this quarterly for one year.
- (2) For each of the indicator parameters specified in paragraph (b)(3), at least four replicate measurements must be obtained for each sample and the initial background arithmetic mean and variance must be determined by pooling the replicate measurements for the respective parameter concentrations or values in samples obtained from upgradient wells during the first year.
- (d) After the first year, all monitoring wells must be sampled and the samples analyzed with the following frequencies:
 - (1) Samples collected to establish ground-water quality must be obtained and analyzed for the parameters specified in paragraph (b)(2) at least annually.
 - (2) Samples collected to indicate ground-water contamination must be obtained and analyzed for the parameters specified in paragraph (b)(3) at least semi-annually.
- (e) Elevation of the ground-water surface at each monitoring well must be determined each time a sample is obtained. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.92)

§11-265-93 Preparation, evaluation, and response. (a) The owner or operator must prepare an outline of a ground-water quality assessment program. The outline must describe a more comprehensive ground-water monitoring program (than that described in sections 11-265-91 and 11-265-92) capable of determining:

- (1) Whether hazardous waste or hazardous waste constituents have entered the ground water;
- (2) The rate and extent of migration of hazardous waste or hazardous waste constituents in the ground water; and
- (3) The concentrations of hazardous waste or hazardous waste constituents in the ground water.
- (b) For each indicator parameter specified in paragraph 11-

265-92(b)(3), the owner or operator must calculate the arithmetic mean and variance, based on at least four replicate measurements on each sample, for each well monitored in accordance with paragraph 11-265-92(d)(2), and compare these results with its initial background arithmetic mean. The comparison must consider individually each of the wells in the monitoring system, and must use the Student's t-test at the 0.01 level of significance (see Appendix IV) to determine statistically significant increases (and decreases, in the case of pH) over initial background.

- (c)(1) If the comparisons for the upgradient wells made under subsection (b) show a significant increase (or pH decrease), the owner or operator must submit this information in accordance with subparagraph 11-265-94(a)(2)(ii).
- (2) If the comparisons for downgradient wells made under subsection (b) show a significant increase (or pH decrease), the owner or operator must then immediately obtain additional ground-water samples from those downgradient wells where a significant difference was detected, split the samples in two, and obtain analyses of all additional samples to determine whether the significant difference was a result of laboratory error.
- (d)(1) If the analyses performed under paragraph (c)(2) confirm the significant increase (or pH decrease), the owner or operator must provide written notice to the director -- within seven days of the date of such confirmation -- that the facility may be affecting ground-water quality.
- (2) Within fifteen days after the notification under paragraph (d)(1), the owner or operator must develop and submit to the director a specific plan, based on the outline required under subsection (a) and certified by a qualified geologist or geotechnical engineer, for a ground-water quality assessment program at the facility.
- (3) The plan to be submitted under paragraph 11-265-90(d)(1) or paragraph (d)(2) must specify:
 - (i) The number, location, and depth of wells;
 - (ii) Sampling and analytical methods for those hazardous wastes or hazardous waste constituents in the facility;
 - (iii) Evaluation procedures, including any use of previously-gathered ground-water quality information; and
 - (iv) A schedule of implementation.
- (4) The owner or operator must implement the ground-water quality assessment plan which satisfies the requirements of paragraph (d)(3), and, at a minimum, determine:

- (i) The rate and extent of migration of the hazardous waste or hazardous waste constituents in the ground water; and
 - (ii) The concentrations of the hazardous waste or hazardous waste constituents in the ground water.
- (5) The owner or operator must make his first determination under paragraph (d)(4) as soon as technically feasible, and, within fifteen days after that determination, submit to the director a written report containing an assessment of the ground-water quality.
- (6) If the owner or operator determines, based on the results of the first determination under paragraph (d)(4), that no hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he may reinstate the indicator evaluation program described in section 11-265-92 and subsection (b). If the owner or operator reinstates the indicator evaluation program, he must so notify the director in the report submitted under paragraph (d)(5).
- (7) If the owner or operator determines, based on the first determination under paragraph (d)(4), that hazardous waste or hazardous waste constituents from the facility have entered the ground water, then he:
 - (i) Must continue to make the determinations required under paragraph (d)(4) on a quarterly basis until final closure of the facility, if the ground-water quality assessment plan was implemented prior to final closure of the facility; or
 - (ii) May cease to make the determinations required under paragraph (d)(4), if the ground-water quality assessment plan was implemented during the post-closure care period.
- (e) Notwithstanding any other provision of this subchapter, any ground-water quality assessment to satisfy the requirements of paragraph (d)(4) which is initiated prior to final closure of the facility must be completed and reported in accordance with paragraph (d)(5).
- (f) Unless the ground water is monitored to satisfy the requirements of paragraph (d)(4), at least annually the owner or operator must evaluate the data on ground-water surface elevations obtained under subsection 11-265-92(e) to determine whether the requirements under subsection 11-265-91(a) for locating the monitoring wells continues to be satisfied. If the evaluation shows that section 11-265-91(a) is no longer satisfied, the owner or operator must immediately modify the number, location, or depth of the monitoring wells to bring the ground-water monitoring system into compliance with this requirement. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.93)

§11-265-94 Recordkeeping and reporting. (a) Unless the ground water is monitored to satisfy the requirements of paragraph 11-265-93(d)(4), the owner or operator must:

- (1) Keep records of the analyses required in subsections 11-265-92(c) and 11-265-92(d), the associated ground-water surface elevations required in subsection 11-265-92(e), and the evaluations required in subsection 11-265-93(b) throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and
- (2) Report the following ground-water monitoring information to the director:
 - (i) During the first year when initial background concentrations are being established for the facility: concentrations or values of the parameters listed in paragraph 11-265-92(b)(1) for each ground-water monitoring well within fifteen days after completing each quarterly analysis. The owner or operator must separately identify for each monitoring well any parameters whose concentration or value has been found to exceed the maximum contaminant levels listed in Appendix III.
 - (ii) Annually: Concentrations or values of the parameters listed in paragraph 11-265-92(b)(3) for each ground-water monitoring well, along with the required evaluations for these parameters under subsection 11-265-93(b). The owner or operator must separately identify any significant differences from initial background found in the upgradient wells, in accordance with paragraph 11-265-93(c)(1). During the active life of the facility, this information must be submitted no later than March 1 following each calendar year.
 - (iii) No later than March 1 following each calendar year: Results of the evaluations of ground-water surface elevations under subsection 11-265-93(f), and a description of the response to that evaluation, where applicable.

(b) If the ground water is monitored to satisfy the requirements of paragraph 11-265-93(d)(4), the owner or operator must:

- (1) Keep records of the analyses and evaluations specified in the plan, which satisfies the requirements of paragraph 11-265-93(d)(3), throughout the active life of the facility, and, for disposal facilities, throughout the post-closure care period as well; and
- (2) Annually, until final closure of the facility, submit to the director a report containing the results of his or her ground-water quality assessment program which

includes, but is not limited to, the calculated (or measured) rate of migration of hazardous waste or hazardous waste constituents in the ground water during the reporting period. This information must be submitted no later than March 1 following each calendar year. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.94)

SUBCHAPTER G

CLOSURE AND POST-CLOSURE

§11-265-110 Applicability. Except as section 11-265-1 provides otherwise:

(a) Sections 11-265-111 through 11-265-115 (which concern closure) apply to the owners and operators of all hazardous waste management facilities; and

(b) Sections 11-265-116 through 11-265-120 (which concern post-closure care) apply to the owners and operators of:

- (1) All hazardous waste disposal facilities;
- (2) Waste piles and surface impoundments for which the owner or operator intends to remove the wastes at closure to the extent that these sections are made applicable to such facilities in section 11-265-228 or section 11-265-258;
- (3) Tank systems that are required under section 11-265-197 to meet requirements for landfills; and
- (4) Containment buildings that are required under section 11-265-1102 to meet the requirement for landfills. [Eff 6/18/94; comp]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35)
(Imp: 40 C.F.R. §265.110)

§11-265-111 Closure performance standard. The owner or operator must close the facility in a manner that:

- (a) Minimizes the need for further maintenance, and
- (b) Controls, minimizes or eliminates, to the extent necessary to protect human health and the environment, post-closure escape of hazardous waste, hazardous constituents, leachate, contaminated run-off, or hazardous waste decomposition products to the ground or surface waters or to the atmosphere, and
- (c) Complies with the closure requirements of this subchapter, including, but not limited to, the requirements of sections 11-265-197, 11-265-228, 11-265-258, 11-265-280, 11-265-310, 11-265-351, 11-265-381, 11-265-404, and 11-265-1102. [Eff 6/18/94; comp]

] (Auth: HRS §§342J-4, 342J-31, 342J-34,
342J-35) (Imp: 40 C.F.R. §265.111)

§11-265-112 Closure plan; amendment of plan. (a) Written plan. By six months after the effective date of the rule that first subjects a facility to provisions of this section, the owner or operator of a hazardous waste management facility must have a written closure plan. Until final closure is completed and certified in accordance with section 11-265-115, a copy of the most current plan must be furnished to the director upon request, including request by mail. In addition, for facilities without approved plans, it must also be provided during site inspections, on the day of inspection, to any officer, employee or representative of the department who is duly designated by the director.

(b) Content of plan. The plan must identify steps necessary to perform partial and/or final closure of the facility at any point during its active life. The closure plan must include, at least:

- (1) A description of how each hazardous waste management unit at the facility will be closed in accordance with section 11-265-111; and
- (2) A description of how final closure of the facility will be conducted in accordance with section 11-265-111. The description must identify the maximum extent of the operation which will be unclosed during the active life of the facility; and
- (3) An estimate of the maximum inventory of hazardous wastes ever on-site over the active life of the facility and a detailed description of the methods to be used during partial and final closure, including, but not limited to methods for removing, transporting, treating, storing or disposing of all hazardous waste, identification of and the type(s) of off-site hazardous waste management unit(s) to be used, if applicable; and
- (4) A detailed description of the steps needed to remove or decontaminate all hazardous waste residues and contaminated containment system components, equipment, structures, and soils during partial and final closure including, but not limited to, procedures for cleaning equipment and removing contaminated soils, methods for sampling and testing surrounding soils, and criteria for determining the extent of decontamination necessary to satisfy the closure performance standard; and
- (5) A detailed description of other activities necessary during the partial and final closure period to ensure that all partial closures and final closure satisfy the closure performance standards, including, but not limited to, ground-water monitoring, leachate

- collection, and run-on and run-off control; and
 - (6) A schedule for closure of each hazardous waste management unit and for final closure of the facility. The schedule must include, at a minimum, the total time required to close each hazardous waste management unit and the time required for intervening closure activities which will allow tracking of the progress of partial and final closure. (For example, in the case of a landfill unit, estimates of the time required to treat or dispose of all hazardous waste inventory and of the time required to place a final cover must be included.); and
 - (7) An estimate of the expected year of final closure for facilities that use trust funds to demonstrate financial assurance under section 11-265-143 or section 11-265-145 and whose remaining operating life is less than twenty years, and for facilities without approved closure plans.
- (c) Amendment of plan. The owner or operator may amend the closure plan at any time prior to the notification of partial or final closure of the facility. An owner or operator with an approved closure plan must submit a written request to the director to authorize a change to the approved closure plan. The written request must include a copy of the amended closure plan for approval by the director.
- (1) The owner or operator must amend the closure plan whenever:
 - (i) Changes in operating plans or facility design affect the closure plan, or
 - (ii) There is a change in the expected year of closure, if applicable, or
 - (iii) In conducting partial or final closure activities, unexpected events require a modification of the closure plan.
 - (2) The owner or operator must amend the closure plan at least sixty days prior to the proposed change in facility design or operation, or no later than sixty days after an unexpected event has occurred which has affected the closure plan. If an unexpected event occurs during the partial or final closure period, the owner or operator must amend the closure plan no later than thirty days after the unexpected event. These provisions also apply to owners or operators of surface impoundments and waste piles who intended to remove all hazardous wastes at closure, but are required to close as landfills in accordance with section 11-265-310.
 - (3) An owner or operator with an approved closure plan must submit the modified plan to the director at least sixty days prior to the proposed change in facility design or operation, or no more than sixty days after an

unexpected event has occurred which has affected the closure plan. If an unexpected event has occurred during the partial or final closure period, the owner or operator must submit the modified plan no more than thirty days after the unexpected event. These provisions also apply to owners or operators of surface impoundments and waste piles who intended to remove all hazardous wastes at closure but are required to close as landfills in accordance with section 11-265-310. If the amendment to the plan is a Class 2 or 3 modification according to the criteria in section 11-270-42, the modification to the plan will be approved according to the procedures in paragraph (d)(4).

- (4) The director may request modifications to the plan under the conditions described in paragraph (c)(1). An owner or operator with an approved closure plan must submit the modified plan within sixty days of the request from the director, or within thirty days if the unexpected event occurs during partial or final closure. If the amendment is considered a Class 2 or 3 modification according to the criteria in section 11-270-42, the modification to the plan will be approved in accordance with the procedures in paragraph (d)(4).
- (d) Notification of partial closure and final closure.
- (1) The owner or operator must submit the closure plan to the director at least one-hundred and eighty days prior to the date on which he expects to begin closure of the first surface impoundment, waste pile, land treatment, or landfill unit, or final closure if it involves such a unit, whichever is earlier. The owner or operator must submit the closure plan to the director at least forty-five days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace. The owner or operator must submit the closure plan to the director at least forty-five days prior to the date on which he expects to begin final closure of a facility with only tanks, container storage, or incinerator units. Owners or operators with approved closure plans must notify the director in writing at least sixty days prior to the date on which he expects to begin closure of a surface impoundment, waste pile, landfill, or land treatment unit, or final closure of a facility involving such a unit. Owners or operators with approved closure plans must notify the director in writing at least forty-five days prior to the date on which he expects to begin partial or final closure of a boiler or industrial furnace. Owners or operators with approved closure plans must notify the director in writing at least forty-five days prior to the date on which he expects to begin final closure of

a facility with only tanks, container storage, or incinerator units.

- (2) The date when he ``expects to begin closure'' must be either:

(i) Within thirty days after the date on which any hazardous waste management unit receives the known final volume of hazardous wastes, or, if there is a reasonable possibility that the hazardous waste management unit will receive additional hazardous wastes, no later than one year after the date on which the unit received the most recent volume of hazardous wastes. If the owner or operator of a hazardous waste management unit can demonstrate to the director that the hazardous waste management unit or facility has the capacity to receive additional hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all interim status requirements, the director may approve an extension to this one-year limit; or

(ii) For units meeting the requirements of subsection 11-265-113(d), no later than thirty days after the date on which the hazardous waste management unit receives the known final volume of non-hazardous wastes, or if there is a reasonable possibility that the hazardous waste management unit will receive additional non-hazardous wastes, no later than one year after the date on which the unit received the most recent volume of non-hazardous wastes. If the owner or operator can demonstrate to the director that the hazardous waste management unit has the capacity to receive additional non-hazardous wastes and he has taken, and will continue to take, all steps to prevent threats to human health and the environment, including compliance with all applicable interim status requirements, the director may approve an extension to this one-year limit.

- (3) The owner or operator must submit his closure plan to the director no later than fifteen days after:

(i) Termination of interim status except when a permit is issued simultaneously with termination of interim status; or

(ii) Issuance of a judicial decree or final order under HRS section 342J-7 to cease receiving hazardous wastes or close.

- (4) The director will provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the plan and request

modifications to the plan no later than thirty days from the date of the notice. The director will also, in response to a request or at the director's own discretion, hold a public hearing whenever such a hearing might clarify one or more issues concerning a closure plan. The director will give public notice of the hearing at least thirty days before it occurs. (Public notice of the hearing may be given at the same time as notice of the opportunity for the public to submit written comments, and the two notices may be combined.) The director will approve, modify, or disapprove the plan within ninety days of its receipt. If the director does not approve the plan he shall provide the owner or operator with a detailed written statement of reasons for the refusal and the owner or operator must modify the plan or submit a new plan for approval within thirty days after receiving such written statement. The director will approve or modify this plan in writing within sixty days. If the director modifies the plan, this modified plan becomes the approved closure plan. The director must assure that the approved plan is consistent with sections 11-265-111 through 11-265-115 and the applicable requirements of subchapter F, sections 11-265-197, 11-265-228, 11-265-258, 11-265-280, 11-265-310, 11-265-351, 11-265-381, 11-265-404, and 11-265-1102. A copy of the modified plan with a detailed statement of reasons for the modifications must be mailed to the owner or operator.

(e) Removal of wastes and decontamination or dismantling of equipment. Nothing in this section shall preclude the owner or operator from removing hazardous wastes and decontaminating or dismantling equipment in accordance with the approved partial or final closure plan at any time before or after notification of partial or final closure. [Eff 6/18/94; comp]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.112)

§11-265-113 Closure; time allowed for closure. (a) Within ninety days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in subsections (d) and (e), at a hazardous waste management unit or facility, or within ninety days after approval of the closure plan, whichever is later, the owner or operator must treat, remove from the unit or facility, or dispose of on-site, all hazardous wastes in accordance with the approved closure plan. The director may approve a longer period if the owner or operator demonstrates that:

- (1)
 - (i) The activities required to comply with this subsection will, of necessity, take longer than ninety days to complete; or
 - (ii)
 - (A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the facility owner or operator complies with subsections (d) and (e); and
 - (B) There is a reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and
 - (C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and
 - (2) He has taken and will continue to take all steps to prevent threats to human health and the environment, including compliance with all applicable interim status requirements.
- (b) The owner or operator must complete partial and final closure activities in accordance with the approved closure plan and within one-hundred and eighty days after receiving the final volume of hazardous wastes, or the final volume of non-hazardous wastes if the owner or operator complies with all applicable requirements in subsections (d) and (e), at the hazardous waste management unit or facility, or one-hundred and eighty days after approval of the closure plan, if that is later. The director may approve an extension to the closure period if the owner or operator demonstrates that:
- (1)
 - (i) The partial or final closure activities will, of necessity, take longer than one-hundred and eighty days to complete; or
 - (ii)
 - (A) The hazardous waste management unit or facility has the capacity to receive additional hazardous wastes, or has the capacity to receive non-hazardous wastes if the facility owner or operator complies with subsections (d) and (e); and
 - (B) There is reasonable likelihood that he or another person will recommence operation of the hazardous waste management unit or the facility within one year; and
 - (C) Closure of the hazardous waste management unit or facility would be incompatible with continued operation of the site; and
 - (2) He has taken and will continue to take all steps to prevent threats to human health and the environment from the unclosed but not operating hazardous waste management unit or facility, including compliance with

all applicable interim status requirements.

(c) The demonstrations referred to in paragraphs (a)(1) and (b)(1) must be made as follows:

- (1) The demonstrations in paragraph (a)(1) must be made at least thirty days prior to the expiration of the ninety day period in subsection (a); and
- (2) The demonstration in paragraph (b)(1) must be made at least thirty days prior to the expiration of the one-hundred and eighty day period in subsection (b), unless the owner or operator is otherwise subject to the deadlines in subsection (d).

(d) The director may allow an owner or operator to receive non-hazardous wastes in a landfill, land treatment, or surface impoundment unit after the final receipt of hazardous wastes at that unit if:

- (1) The owner or operator submits an amended Part B application, or a Part B application, if not previously required, and demonstrates that:
 - (i) The unit has the existing design capacity as indicated on the Part A application to receive non-hazardous wastes; and
 - (ii) There is a reasonable likelihood that the owner or operator or another person will receive non-hazardous wastes in the unit within one year after the final receipt of hazardous wastes; and
 - (iii) The non-hazardous wastes will not be incompatible with any remaining wastes in the unit or with the facility design and operating requirements of the unit or facility under this chapter; and
 - (iv) Closure of the hazardous waste management unit would be incompatible with continued operation of the unit or facility; and
 - (v) The owner or operator is operating and will continue to operate in compliance with all applicable interim status requirements; and
- (2) The Part B application includes an amended waste analysis plan, ground-water monitoring and response program, human exposure assessment required under subsection 11-270-10(j), and closure and post-closure plans, and updated cost estimates and demonstrations of financial assurance for closure and post-closure care as necessary and appropriate to reflect any changes due to the presence of hazardous constituents in the non-hazardous wastes, and changes in closure activities, including the expected year of closure if applicable under paragraph 11-265-112(b)(7), as a result of the receipt of non-hazardous wastes following the final receipt of hazardous wastes; and
- (3) The Part B application is amended, as necessary and appropriate, to account for the receipt of

non-hazardous wastes following receipt of the final volume of hazardous wastes; and

- (4) The Part B application and the demonstrations referred to in paragraphs (d)(1) and (d)(2) are submitted to the director no later than one-hundred and eighty days prior to the date on which the owner or operator of the facility receives the known final volume of hazardous wastes, or no later than ninety days after the effective date of this rule, whichever is later.

(e) In addition to the requirements in subsection (d), an owner or operator of a hazardous waste surface impoundment that is not in compliance with the liner and leachate collection system requirements in RCRA section 3004(o)(1) and 3005(j)(1) or 3004(o)(2) or (3) or 3005(j) (2), (3), (4) or (13) (1984) must:

- (1) Submit with the Part B application:
 - (i) A contingent corrective measures plan; and
 - (ii) A plan for removing hazardous wastes in compliance with paragraph (e)(2); and
- (2) Remove all hazardous wastes from the unit by removing all hazardous liquids and removing all hazardous sludges to the extent practicable without impairing the integrity of the liner(s), if any.
- (3) Removal of hazardous wastes must be completed no later than ninety days after the final receipt of hazardous wastes. The director may approve an extension to this deadline if the owner or operator demonstrates that the removal of hazardous wastes will, of necessity, take longer than the allotted period to complete and that an extension will not pose a threat to human health and the environment.
- (4) If a release that is a statistically significant increase (or decrease in the case of pH) in hazardous constituents over background levels is detected in accordance with the requirements in subchapter F, the owner or operator of the unit:
 - (i) Must implement corrective measures in accordance with the approved contingent corrective measures plan required by paragraph (e)(1) no later than one year after detection of the release, or approval of the contingent corrective measures plan, whichever is later;
 - (ii) May receive wastes at the unit following detection of the release only if the approved corrective measures plan includes a demonstration that continued receipt of wastes will not impede corrective action; and
 - (iii) May be required by the director to implement corrective measures in less than one year or to cease receipt of wastes until corrective measures have been implemented if necessary to protect

human health and the environment.

- (5) During the period of corrective action, the owner or operator shall provide semi-annual reports to the director that describe the progress of the corrective action program, compile all ground-water monitoring data, and evaluate the effect of the continued receipt of non-hazardous wastes on the effectiveness of the corrective action.
- (6) The director may require the owner or operator to commence closure of the unit if the owner or operator fails to implement corrective action measures in accordance with the approved contingent corrective measures plan within one year as required in paragraph (e)(4), or fails to make substantial progress in implementing corrective action and achieving the facility's background levels.
- (7) If the owner or operator fails to implement corrective measures as required in paragraph (e)(4), or if the director determines that substantial progress has not been made pursuant to paragraph (e)(6) he shall:
 - (i) Notify the owner or operator in writing that the owner or operator must begin closure in accordance with the deadline in paragraphs (a) and (b) and provide a detailed statement of reasons for this determination, and
 - (ii) Provide the owner or operator and the public, through a newspaper notice, the opportunity to submit written comments on the decision no later than twenty days after the date of the notice.
 - (iii) If the director receives no written comments, the decision will become final five days after the close of the comment period. The director will notify the owner or operator that the decision is final, and that a revised closure plan, if necessary, must be submitted within fifteen days of the final notice and that closure must begin in accordance with the deadlines in subsections (a) and (b).
 - (iv) If the director receives written comments on the decision, he shall make a final decision within thirty days after the end of the comment period, and provide the owner or operator in writing and the public through a newspaper notice, a detailed statement of reasons for the final decision. If the director determines that substantial progress has not been made, closure must be initiated in accordance with the deadlines in subsections (a) and (b).
 - (v) [Reserved] [Eff 6/18/94; comp _____]
(Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35)

§11-265-113

(Imp: 40 C.F.R. §265.113)

§11-265-114 Disposal or decontamination of equipment, structures and soils. During the partial and final closure periods, all contaminated equipment, structures and soil must be properly disposed of, or decontaminated unless specified otherwise in sections 11-265-197, 11-265-228, 11-265-258, 11-265-280, or 11-265-310. By removing all hazardous wastes or hazardous constituents during partial and final closure, the owner or operator may become a generator of hazardous waste and must handle that hazardous waste in accordance with all applicable requirements of chapter 11-262. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.114)

§11-265-115 Certification of closure. Within sixty days of completion of closure of each hazardous waste surface impoundment, waste pile, land treatment, and landfill unit, and within sixty days of completion of final closure, the owner or operator must submit to the director, by registered mail, a certification that the hazardous waste management unit or facility, as applicable, has been closed in accordance with the specifications in the approved closure plan. The certification must be signed by the owner or operator and by an independent registered professional engineer. Documentation supporting the independent registered professional engineer's certification must be furnished to the director upon request until he releases the owner or operator from the financial assurance requirements for closure under subsection 11-265-143(h). [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.115)

§11-265-116 Survey plat. No later than the submission of the certification of closure of each hazardous waste disposal unit, an owner or operator must submit to the local zoning authority, or the authority with jurisdiction over local land use, and to the director, a survey plat indicating the location and dimensions of landfill cells or other hazardous waste disposal units with respect to permanently surveyed benchmarks. This plat must be prepared and certified by a professional land surveyor. The plat filed with the local zoning authority, or the authority with jurisdiction over local land use must contain a note, prominently displayed, which states the owner's or operator's obligation to restrict disturbance of the hazardous waste disposal unit in accordance with the applicable rules in subchapter G. [Eff 6/18/94; comp] (Auth: HRS §§342J-4, 342J-31, 342J-34, 342J-35) (Imp: 40 C.F.R. §265.116)